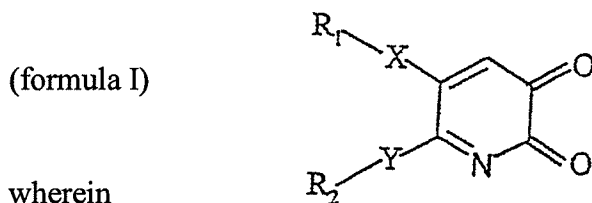


### AMENDMENT

Kindly amend the application, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows.

#### In the Claims:

1. (Original) A compound represented by formula I:



R<sub>1</sub> and R<sub>2</sub> may be the same or different, each independently represents substituted or unsubstituted phenyl, pyridinyl or pyrimidinyl,

X and Y may be the same or different, each independently represents an N or S atom, provided that when X or Y represents S, then the R<sub>1</sub> or R<sub>2</sub> attached to the S atom is substituted or unsubstituted phenyl.

2. (Original) The compound of claim 1, wherein:

when R<sub>1</sub> or R<sub>2</sub> represents substituted phenyl, substituted pyridinyl or substituted pyrimidinyl, the phenyl, pyridinyl, pyrimidinyl has one to three substituents independently selected from the group consisting of C<sub>1</sub>-C<sub>6</sub> linear or branched alkyl, C<sub>1</sub>-C<sub>6</sub> linear or branched alkoxy, halogen, amino, di(C<sub>1</sub>-C<sub>3</sub> alkyl)amino, carbamyl, sulfamoyl, sulfo, cyano, nitro, carboxyl, hydroxy, hydroxy(C<sub>1</sub>-C<sub>3</sub>) alkyl, (C<sub>1</sub>-C<sub>3</sub> alkyl)acyl and (C<sub>1</sub>-C<sub>3</sub> alkyl)thio.

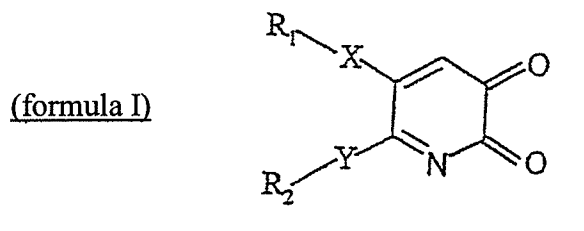
3. (Original) The compound of claim 2, wherein:

R<sub>1</sub>-X- and R<sub>2</sub>-Y- each is independently selected from the group consisting of p-tolylamino, o-tolylamino, m-tolylamino, p-ethylphenylamino, o-ethylphenylamino, m-ethylphenylamino, p-chlorophenylamino, o-chlorophenylamino, m-chlorophenylamino, p-fluorophenylamino, o-fluorophenylamino, m-fluorophenylamino, p-bromophenylamino, o-bromophenylamino, m-bromophenylamino, p-iodophenylamino, o-iodophenylamino, m-iodophenylamino, p-nitrophenylamino, o-nitrophenylamino, m-nitrophenylamino, p-

carboxylphenylamino, o-carboxylphenylamino, m-carboxylphenylamino, p-carbamoylphenylamino, o-carbamoylphenylamino, m-carbamoylphenylamino, p-methoxyphenylamino, o-methoxyphenylamino, m-methoxyphenylamino, p-ethoxyphenylamino, o-ethoxyphenylamino, m-ethoxyphenylamino, p-sulfophenylamino, o-sulfophenylamino, m-sulfophenylamino, p-sulfamoylphenylamino, o-sulfamoylphenylamino, m-sulfamoylphenylamino, p-cyanoylphenylamino, o-cyanoylphenylamino, m-cyanoylphenylamino, p-hydroxymethylphenylamino, o-hydroxymethylphenylamino, m-hydroxymethylphenylamino, p-acetylphenylamino, o-acetylphenylamino, m-acetylphenylamino, p-acetaminophenylamino, o-acetaminophenylamino, m-acetaminophenylamino, p-N,N-dimethylaminophenylamino, o-N,N-dimethylaminophenylamino, m-N,N-dimethylaminophenylamino, 2-carboxyl-4-bromophenylamino, 2-carboxyl-6-chloro-phenylamino, 2-carboxyl-5-chlorophenylamino, 2-carboxyl-4-chlorophenylamino, 2-carboxyl-3-chlorophenylamino, 3-carboxyl-2-chlorophenylamino, 3-carboxyl-6-chlorophenylamino, 3-carboxyl-4-chlorophenylamino, 4-carboxyl-3-chlorophenylamino, 2-cyano-5-chlorophenylamino, 2-hydroxymethyl-4-chlorophenylamino, 4-carboxyl-5-methoxy-2-chlorophenylamino, 2-sulfo-4-methyl-5-chlorophenylamino, 2-methyl-4-nitro-5-chlorophenylamino, 2-carboxyl-4,6-dichlorophenylamino, 2-carboxyl-4,6-diiodophenylamino, 4-carboxyl-2,6-diiodophenylamino, 2-carboxyl-4,6-dimethoxyphenylamino, 2-cyano-4,6-dimethoxyphenylamino, 4-carbamoyl-2,6-dinitrophenylamino, 2-carboxyl-5-fluorophenylamino, 2-carboxyl-4-fluorophenylamino, 2-carboxyl-3-fluorophenylamino, 2-cyano-3-fluorophenylamino, 2-carboxyl-4-iodophenylamino, 2-carboxyl-6-methoxyphenylamino, 3-carboxyl-6-methoxyphenylamino, 4-carboxyl-6-methoxyphenylamino, 2-carboxyl-4-methylphenylamino, 2-carboxyl-3-methylphenylamino, 3-carboxyl-2-methylphenylamino, 4-carboxyl-2-methylphenylamino, 5-carboxyl-2-methylphenylamino, 2-cyano-5-methylphenylamino, 2-hydroxymethyl-6-methylphenylamino, 2-hydroxymethyl-4-methylphenylamino, 2-methyl-3-hydroxymethylphenylamino, 2-methyl-5-hydroxymethylphenylamino, 2-cyano-4-nitrophenylamino, 4-cyano-2-nitrophenylamino, 2-methyl-4-nitrophenylamino, 2-hydroxy-3-carboxylphenylamino, 3-hydroxy-4-carboxylphenylamino, 3-carboxyl-4-hydroxyphenylamino, 4-sulfo-2-methylphenylamino, 3-sulfo-4-methylphenylamino, 2-sulfo-4-methylphenylamino, phenylthio, p-methylphenylthio, o-methylphenylthio, m-methylphenylthio, 2-carboxylphenylthio, pyridin-2-amino, pyridin-3-amino,

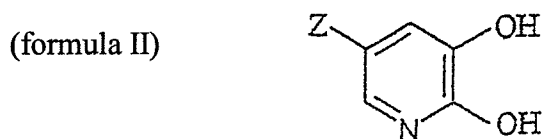
pyridin-4-amino, 5-bromopyridin-2-amino, 5-bromo-3-nitropyridin-2-amino, 4-methyl-3-nitropyridin-2-amino, 4-methyl-5-nitropyridin-2-amino, 3-nitropyridin-2-amino, 5-nitropyridin-2-amino, 3-methylpyridin-2-amino, 4-methylpyridin-2-amino, 5-methylpyridin-2-amino, 6-methylpyridin-2-amino, 4,6-dimethylpyridin-2-amino, 2-methoxypyridin-5-amino, 5-chloropyridin-2-amino, 2-chloropyridin-3-amino, 2-chloropyridin-5-amino, 3,5-dibromopyridin-2-amino, 3,5-dichloropyridin-2-amino, 4-methyl-3-nitropyridin-2-amino, 4-methyl-5-nitropyridin-2-amino, nicotinamid-6-amino, nicotinamid-2-amino, pyrimidin-2-amino, pyrimidin-4-amino, 5-bromopyrimidin-2-amino, 2,6-dihydroxypyrimidin-4-amino, 4,6-dimethoxypyrimidin-3-amino, 4,6-dimethoxypyrimidin-2-amino, 4-hydroxy-6-methylpyrimidin-2-amino, 3-hydroxypyrimidin-2-amino, 4-methoxy-5-methylpyrimidin-2-amino, 2-methoxypyrimidin-5-amino, 4-chloro-6-methylpyrimidin-2-amino, 6-chloro-2-methylthiopyrimidin-4-amino, 4,6-dichloropyrimidin-2-amino, 4,6-dichloropyrimidin-5-amino, 4-methylpyrimidin-2-amino, 3-nitropyrimidin-2-amino and 5-nitropyrimidin-2-amino.

4. (Currently amended) A method of preparing the compound represented by formula I,



comprising:

reacting the compound represented by formula II



wherein Z is H or halogen,  
with one or two aromatic amines represented by formula III

$R_4NH_2$  (formula III)

Wherein  $R_4$  represents substituted or unsubstituted phenyl, pyridinyl or pyrimidinyl,

or,

with one or two thiophenols represented by formula IV

$R_5SH$  (formula IV)

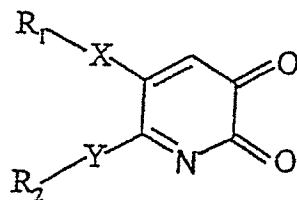
Wherein  $R_5$  represents substituted or unsubstituted phenyl,

in the presence of an oxidant at a temperature of 10-80°C for 0.2-20 hrs.

5. (Original) The method of claim 4, wherein the halogen is chloro or bromo.
6. (Original) The method of claim 4, wherein  $R_4$  represents substituted phenyl, substituted pyridinyl or substituted pyrimidinyl, the phenyl, pyridinyl or pyrimidinyl has one to three substituents independently selected from the group consisting of  $C_1$ - $C_6$  linear or branched alkyl,  $C_1$ - $C_6$  linear or branched alkoxy, halogen, amino, di( $C_1$ - $C_3$  alkyl)amino, carbamyl, sulfamoyl, sulfo, cyano, nitro, carboxyl, hydroxy, hydroxy( $C_1$ - $C_3$ ) alkyl, ( $C_1$ - $C_3$  alkyl)acyl and ( $C_1$ - $C_3$  alkyl)thio.
7. (Original) The method of claim 4, wherein  $R_5$  represents a substituted phenyl having one to two substituents selected from the group consisting of methyl, ethyl, propyl and carboxyl.
8. (Previously presented) The method of claim 4, wherein the reaction is performed in an aqueous organic solvent, and wherein the oxidant is selected from the group consisting of alkali metal salts of bromic acid, alkali metal salts of iodic acid, alkali metal salts of persulfuric acid, alkali metal salts of chloric acid, and the mixture thereof.
9. (Original) The method of claim 8, wherein the alkali metal is sodium or potassium.

10. (Original) The method of claim 8, wherein the reaction temperature is 40°C-60°C.
11. (Original) The method of claim 8, wherein the oxidant is added in portions.
12. (Original) The method of claim 8, wherein the reaction time is 2-10 hrs.
13. (Previously presented) The method of claim 4, wherein the oxidant is a polyphenoloxidase.
14. (Original) The method of claim 13, wherein the reaction temperature is 25°C-45°C.
15. (Original) The method of claim 13, wherein the reaction time is 2-20 hrs.
16. (Previously presented) The method of claim 4, wherein the organic solvent is selected from the group consisting of methanol, ethanol, dimethyl sulfoxide, acetone, dioxane, tetrahydrofuran, dimethyl formamide, acetonitrile, and the mixture thereof.
17. (Original) A pharmaceutical composition, which contains the compound represented by formula I as an active component and a pharmaceutically acceptable carrier,

(formula I)



wherein

R<sub>1</sub> and R<sub>2</sub> may be the same or different, each independently represents substituted or unsubstituted phenyl, pyridinyl or pyrimidinyl,

X and Y may be the same or different, each independently represents an N or S atom, provided that when X or Y represents S, then the R<sub>1</sub> or R<sub>2</sub> attached to the S atom is substituted or unsubstituted phenyl.

18. (Original) The pharmaceutical composition of claim 17, wherein when R<sub>1</sub> or R<sub>2</sub> represents substituted phenyl, substituted pyridinyl or substituted pyrimidinyl, the phenyl, pyridinyl, pyrimidinyl has one to three substituents independently selected from the group consisting of C<sub>1</sub>-C<sub>6</sub> linear or branched alkyl, C<sub>1</sub>-C<sub>6</sub> linear or branched alkoxy, halogen, amino, di(C<sub>1</sub>-C<sub>3</sub> alkyl)amino, carbamyl, sulfamoyl, sulfo, cyano, nitro, carboxyl, hydroxy, hydroxy(C<sub>1</sub>-C<sub>3</sub>) alkyl, (C<sub>1</sub>-C<sub>3</sub> alkyl)acyl and (C<sub>1</sub>-C<sub>3</sub> alkyl)thio.

19. (Original) The pharmaceutical composition of claim 18, wherein R<sub>1</sub>-X- and R<sub>2</sub>-Y- each is independently selected from the group consisting of p-tolylamino, o-tolylamino, m-tolylamino, p-ethylphenylamino, o-ethylphenylamino, m-ethylphenylamino, p-chlorophenylamino, o-chlorophenylamino, m-chlorophenylamino, p-fluorophenylamino, o-fluorophenylamino, m-fluorophenylamino, p-bromophenylamino, o-bromophenylamino, m-bromophenylamino, p-iodophenylamino, o-iodophenylamino, m-iodophenylamino, p-nitrophenylamino, o-nitrophenylamino, m-nitrophenylamino, p-carboxylphenylamino, o-carboxylphenylamino, m-carboxylphenylamino, p-carbamoylphenylamino, o-carbamoylphenylamino, m-carbamoylphenylamino, p-methoxyphenylamino, o-methoxyphenylamino, m-methoxyphenylamino, p-ethoxyphenylamino, o-ethoxyphenylamino, m-ethoxyphenylamino, p-sulfophenylamino, o-sulfophenylamino, m-sulfophenylamino, p-sulfamoylphenylamino, o-sulfamoylphenylamino, m-sulfamoylphenylamino, p-cyanoylphenylamino, o-cyanoylphenylamino, m-cyanoylphenylamino, p-hydroxymethylphenylamino, o-hydroxymethylphenylamino, m-hydroxymethylphenylamino, p-acetylphenylamino, o-acetylphenylamino, m-acetylphenylamino, p-acetaminophenylamino, o-acetaminophenylamino, m-acetaminophenylamino, p-N,N-dimethylaminophenylamino, o-N,N-dimethylaminophenylamino, m-N,N-dimethylaminophenylamino, 2-carboxyl-4-bromophenylamino, 2-carboxyl-6-chloro-phenylamino, 2-carboxyl-5-chlorophenylamino, 2-carboxyl-4-chlorophenylamino, 2-carboxyl-3-chlorophenylamino, 3-carboxyl-2-chlorophenylamino, 3-carboxyl-6-chlorophenylamino, 3-carboxyl-4-chlorophenylamino, 4-carboxyl-3-chlorophenylamino, 2-cyano-5-chlorophenylamino, 2-hydroxymethyl-4-chlorophenylamino, 4-carboxyl-5-methoxy-2-chlorophenylamino, 2-sulfo-4-methyl-5-

chlorophenylamino, 2-methyl-4-nitro-5-chlorophenylamino, 2-carboxyl-4,6-dichlorophenylamino, 2-carboxyl-4,6-diiodophenylamino, 4-carboxyl-2,6-diiodophenylamino, 2-carboxyl-4,6-dimethoxyphenylamino, 2-cyano-4,6-dimethoxyphenylamino, 4-carbamoyl-2,6-dinitrophenylamino, 2-carboxyl-5-fluorophenylamino, 2-carboxyl-4-fluorophenylamino, 2-carboxyl-3-fluorophenylamino, 2-cyano-3-fluorophenylamino, 2-carboxyl-4-iodophenylamino, 2-carboxyl-6-methoxyphenylamino, 3-carboxyl-6-methoxyphenylamino, 4-carboxyl-6-methoxyphenylamino, 2-carboxyl-4-methylphenylamino, 2-carboxyl-3-methylphenylamino, 3-carboxyl-2-methylphenylamino, 4-carboxyl-2-methylphenylamino, 5-carboxyl-2-methylphenylamino, 2-cyano-5-methylphenylamino, 2-hydroxymethyl-6-methylphenylamino, 2-hydroxymethyl-4-methylphenylamino, 2-methyl-3-hydroxymethylphenylamino, 2-methyl-5-hydroxymethylphenylamino, 2-cyano-4-nitrophenylamino, 4-cyano-2-nitrophenylamino, 2-methyl-4-nitrophenylamino, 2-hydroxy-3-carboxylphenylamino, 3-hydroxy-4-carboxylphenylamino, 3-carboxyl-4-hydroxyphenylamino, 4-sulfo-2-methylphenylamino, 3-sulfo-4-methylphenylamino, 2-sulfo-4-methylphenylamino, phenylthio, p-methylphenylthio, o-methylphenylthio, m-methylphenylthio, 2-carboxylphenylthio, pyridin-2-amino, pyridin-3-amino, pyridin-4-amino, 5-bromopyridin-2-amino, 5-bromo-3-nitropyridin-2-amino, 4-methyl-3-nitropyridin-2-amino, 4-methyl-5-nitropyridin-2-amino, 3-nitropyridin-2-amino, 5-nitropyridin-2-amino, 3-methylpyridin-2-amino, 4-methylpyridin-2-amino, 5-methylpyridin-2-amino, 6-methylpyridin-2-amino, 4,6-dimethylpyridin-2-amino, 2-methoxypyridin-5-amino, 5-chloropyridin-2-amino, 2-chloropyridin-3-amino, 2-chloropyridin-5-amino, 3,5-dibromopyridin-2-amino, 3,5-dichloropyridin-2-amino, 4-methyl-3-nitropyridin-2-amino, 4-methyl-5-nitropyridin-2-amino, nicotinamid-6-amino, nicotinamid-2-amino, pyrimidin-2-amino, pyrimidin-4-amino, 5-bromopyrimidin-2-amino, 2,6-dihydroxypyrimidin-4-amino, 4,6-dimethoxypyrimidin-3-amino, 4,6-dimethoxypyrimidin-2-amino, 4-hydroxy-6-methylpyrimidin-2-amino, 3-hydroxypyrimidin-2-amino, 4-methoxy-5-methylpyrimidin-2-amino, 2-methoxypyrimidin-5-amino, 4-chloro-6-methylpyrimidin-2-amino, 6-chloro-2-methylthiopyrimidin-4-amino, 4,6-dichloropyrimidin-2-amino, 4,6-dichloropyrimidin-5-amino, 4-methylpyrimidin-2-amino, 3-nitropyrimidin-2-amino and 5-nitropyrimidin-2-amino.

20. (Currently amended) ~~The use of the compound represented by formula I, wherein the compound is used in~~ A method of preparing a pharmaceutical composition for selectively inhibiting cyclooxygenase-2, wherein the method comprises

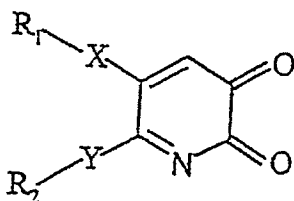
(a) mixing the compound represented by formula I with pharmaceutically acceptable excipients;

(b) diluting the compound represented by formula I with pharmaceutically acceptable excipients; or

(c) encapsulating the compound represented by formula I into a carrier to form a capsule or a vesicle,

wherein formula I is:

(formula I)



and wherein

R<sub>1</sub> and R<sub>2</sub> may be the same or different, each independently represents substituted or unsubstituted phenyl, pyridinyl or pyrimidinyl,

X and Y may be the same or different, each independently represents an N or S atom, provided that when X or Y represents S, then the R<sub>1</sub> or R<sub>2</sub> attached to the S atom is substituted or unsubstituted phenyl.

21. (Original) The use of claim 20, wherein when R<sub>1</sub> or R<sub>2</sub> represents substituted phenyl, substituted pyridinyl or substituted pyrimidinyl, the phenyl, pyridinyl, pyrimidinyl has one to three substituents independently selected from the group consisting of C<sub>1</sub>-C<sub>6</sub> linear or branched alkyl, C<sub>1</sub>-C<sub>6</sub> linear or branched alkoxy, halogen, amino, di(C<sub>1</sub>-C<sub>3</sub> alkyl)amino, carbamyl, sulamoyl, sulfo, cyano, nitro, carboxyl, hydroxy, hydroxy(C<sub>1</sub>-C<sub>3</sub>) alkyl, (C<sub>1</sub>-C<sub>3</sub> alkyl)acyl and (C<sub>1</sub>-C<sub>3</sub> alkyl)thio.

22. (Original) The use of claim 21, wherein R<sub>1</sub>-X- and R<sub>2</sub>-Y- each is independently selected from the group consisting of p-tolylamino, o-tolylamino, m-tolylamino, p-ethylphenylamino, o-ethylphenylamino, m-ethylphenylamino, p-chlorophenylamino, o-chlorophenylamino, m-chlorophenylamino, p-fluorophenylamino, o-fluorophenylamino, m-fluorophenylamino, p-bromophenylamino, o-bromophenylamino, m-bromophenylamino, p-iodophenylamino, o-iodophenylamino, m-iodophenylamino, p-nitrophenylamino, o-

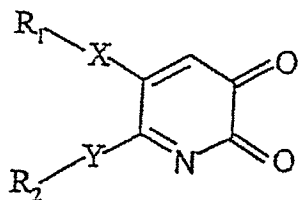


nitrophenylamino, m-nitrophenylamino, p-carboxylphenylamino, o-carboxylphenylamino, m-carboxylphenylamino, p-carbamoylphenylamino, o-carbamoylphenylamino, m-carbamoylphenylamino, p-methoxyphenylamino, o-methoxyphenylamino, m-methoxyphenylamino, p-ethoxyphenylamino, o-ethoxyphenylamino, m-ethoxyphenylamino, p-sulfophenylamino, o-sulfophenylamino, m-sulfophenylamino, p-sulfamoylphenylamino, o-sulfamoylphenylamino, m-sulfamoylphenylamino, p-cyanoylphenylamino, o-cyanoylphenylamino, m-cyanoylphenylamino, p-hydroxymethylphenylamino, o-hydroxymethylphenylamino, m-hydroxymethylphenylamino, p-acetylphenylamino, o-acetylphenylamino, m-acetylphenylamino, p-acetaminophenylamino, o-acetaminophenylamino, m-acetaminophenylamino, p-N,N-dimethylaminophenylamino, o-N,N-dimethylaminophenylamino, m-N,N-dimethylaminophenylamino, 2-carboxyl-4-bromophenylamino, 2-carboxyl-6-chloro-phenylamino, 2-carboxyl-5-chlorophenylamino, 2-carboxyl-4-chlorophenylamino, 2-carboxyl-3-chlorophenylamino, 3-carboxyl-2-chlorophenylamino, 3-carboxyl-6-chlorophenylamino, 3-carboxyl-4-chlorophenylamino, 4-carboxyl-3-chlorophenylamino, 2-cyano-5-chlorophenylamino, 2-hydroxymethyl-4-chlorophenylamino, 4-carboxyl-5-methoxy-2-chlorophenylamino, 2-sulfo-4-methyl-5-chlorophenylamino, 2-methyl-4-nitro-5-chlorophenylamino, 2-carboxyl-4,6-dichlorophenylamino, 2-carboxyl-4,6-diiodophenylamino, 4-carboxyl-2,6-diiodophenylamino, 2-carboxyl-4,6-dimethoxyphenylamino, 2-cyano-4,6-dimethoxyphenylamino, 4-carbamoyl-2,6-dinitrophenylamino, 2-carboxyl-5-fluorophenylamino, 2-carboxyl-4-fluorophenylamino, 2-carboxyl-3-fluorophenylamino, 2-cyano-3-fluorophenylamino, 2-carboxyl-4-iodophenylamino, 2-carboxyl-6-methoxyphenylamino, 3-carboxyl-6-methoxyphenylamino, 4-carboxyl-6-methoxyphenylamino, 2-carboxyl-4-methylphenylamino, 2-carboxyl-3-methylphenylamino, 3-carboxyl-2-methylphenylamino, 4-carboxyl-2-methylphenylamino, 5-carboxyl-2-methylphenylamino, 2-cyano-5-methylphenylamino, 2-hydroxymethyl-6-methylphenylamino, 2-hydroxymethyl-4-methylphenylamino, 2-methyl-3-hydroxymethylphenylamino, 2-methyl-5-hydroxymethylphenylamino, 2-cyano-4-nitrophenylamino, 4-cyano-2-nitrophenylamino, 2-methyl-4-nitrophenylamino, 2-hydroxy-3-carboxylphenylamino, 3-hydroxy-4-carboxylphenylamino, 3-carboxyl-4-hydroxyphenylamino, 4-sulfo-2-methylphenylamino, 3-sulfo-4-methylphenylamino, 2-sulfo-4-methylphenylamino, phenylthio, p-methylphenylthio, o-

methylphenylthio, m-methylphenylthio, 2-carboxylphenylthio, pyridin-2-amino, pyridin-3-amino, pyridin-4-amino, 5-bromopyridin-2-amino, 5-bromo-3-nitropyridin-2-amino, 4-methyl-3-nitropyridin-2-amino, 4-methyl-5-nitropyridin-2-amino, 3-nitropyridin-2-amino, 5-nitropyridin-2-amino, 3-methylpyridin-2-amino, 4-methylpyridin-2-amino, 5-methylpyridin-2-amino, 6-methylpyridin-2-amino, 4,6-dimethylpyridin-2-amino, 2-methoxypyridin-5-amino, 5-chloropyridin-2-amino, 2-chloropyridin-3-amino, 2-chloropyridin-5-amino, 3,5-dibromopyridin-2-amino, 3,5-dichloropyridin-2-amino, 4-methyl-3-nitropyridin-2-amino, 4-methyl-5-nitropyridin-2-amino, nicotinamid-6-amino, nicotinamid-2-amino, pyrimidin-2-amino, pyrimidin-4-amino, 5-bromopyrimidin-2-amino, 2,6-dihydroxypyrimidin-4-amino, 4,6-dimethoxypyrimidin-3-amino, 4,6-dimethoxypyrimidin-2-amino, 4-hydroxy-6-methylpyrimidin-2-amino, 3-hydroxypyrimidin-2-amino, 4-methoxy-5-methylpyrimidin-2-amino, 2-methoxypyrimidin-5-amino, 4-chloro-6-methylpyrimidin-2-amino, 6-chloro-2-methylthiopyrimidin-4-amino, 4,6-dichloropyrimidin-2-amino, 4,6-dichloropyrimidin-5-amino, 4-methylpyrimidin-2-amino, 3-nitropyrimidin-2-amino and 5-nitropyrimidin-2-amino.

23. (Currently amended) A method of selectively inhibiting cyclooxygenase-2 for the treatment of inflammation, wherein comprising administrating the compound represented by formula I to a mammal,

(formula I)



wherein

R<sub>1</sub> and R<sub>2</sub> may be the same or different, each independently represents substituted or unsubstituted phenyl, pyridinyl or pyrimidinyl,

X and Y may be the same or different, each independently represents an N or S atom, provided that when X or Y represents S, then the R<sub>1</sub> or R<sub>2</sub> attached to the S atom is substituted or unsubstituted phenyl.

24. (Original) The method of claim 23, wherein when R<sub>1</sub> or R<sub>2</sub> represents substituted phenyl, substituted pyridinyl or substituted pyrimidinyl, the phenyl, pyridinyl, pyrimidinyl has

one to three substituents independently selected from the group consisting of C<sub>1</sub>-C<sub>6</sub> linear or branched alkyl, C<sub>1</sub>-C<sub>6</sub> linear or branched alkoxy, halogen, amino, di(C<sub>1</sub>-C<sub>3</sub> alkyl)amino, carbamyl, sulamoyl, sulfo, cyano, nitro, carboxyl, hydroxy, hydroxy(C<sub>1</sub>-C<sub>3</sub>) alkyl, (C<sub>1</sub>-C<sub>3</sub> alkyl)acyl and (C<sub>1</sub>-C<sub>3</sub> alkyl)thio.

25. (Original) The method of claim 24, wherein R<sub>1</sub>-X- and R<sub>2</sub>-Y- each is independently selected from the group consisting of p-tolylamino, o-tolylamino, m-tolylamino, p-ethylphenylamino, o-ethylphenylamino, m-ethylphenylamino, p-chlorophenylamino, o-chlorophenylamino, m-chlorophenylamino, p-fluorophenylamino, o-fluorophenylamino, m-fluorophenylamino, p-bromophenylamino, o-bromophenylamino, m-bromophenylamino, p-iodophenylamino, o-iodophenylamino, m-iodophenylamino, p-nitrophenylamino, o-nitrophenylamino, m-nitrophenylamino, p-carboxylphenylamino, o-carboxylphenylamino, m-carboxylphenylamino, p-carbamoylphenylamino, o-carbamoylphenylamino, m-carbamoylphenylamino, p-methoxyphenylamino, o-methoxyphenylamino, m-methoxyphenylamino, p-ethoxyphenylamino, o-ethoxyphenylamino, m-ethoxyphenylamino, p-sulfophenylamino, o-sulfophenylamino, m-sulfophenylamino, p-sulfamoylphenylamino, o-sulfamoylphenylamino, m-sulfamoylphenylamino, p-cyanoylphenylamino, o-cyanoylphenylamino, m-cyanoylphenylamino, p-hydroxymethylphenylamino, o-hydroxymethylphenylamino, m-hydroxymethylphenylamino, p-acetylphenylamino, o-acetylphenylamino, m-acetylphenylamino, p-acetaminophenylamino, o-acetaminophenylamino, m-acetaminophenylamino, p-N,N-dimethylaminophenylamino, o-N,N-dimethylaminophenylamino, m-N,N-dimethylaminophenylamino, 2-carboxyl-4-bromophenylamino, 2-carboxyl-6-chloro-phenylamino, 2-carboxyl-5-chlorophenylamino, 2-carboxyl-4-chlorophenylamino, 2-carboxyl-3-chlorophenylamino, 3-carboxyl-2-chlorophenylamino, 3-carboxyl-6-chlorophenylamino, 3-carboxyl-4-chlorophenylamino, 4-carboxyl-3-chlorophenylamino, 2-cyano-5-chlorophenylamino, 2-hydroxymethyl-4-chlorophenylamino, 4-carboxyl-5-methoxy-2-chlorophenylamino, 2-sulfo-4-methyl-5-chlorophenylamino, 2-methyl-4-nitro-5-chlorophenylamino, 2-carboxyl-4,6-dichlorophenylamino, 2-carboxyl-4,6-diiodophenylamino, 4-carboxyl-2,6-diiodophenylamino, 2-carboxyl-4,6-dimethoxyphenylamino, 2-cyano-4,6-dimethoxyphenylamino, 4-carbamoyl-2,6-

dinitrophenylamino, 2-carboxyl-5-fluorophenylamino, 2-carboxyl-4-fluorophenylamino, 2-carboxyl-3-fluorophenylamino, 2-cyano-3-fluorophenylamino, 2-carboxyl-4-iodophenylamino, 2-carboxyl-6-methoxyphenylamino, 3-carboxyl-6-methoxyphenylamino, 4-carboxyl-6-methoxyphenylamino, 2-carboxyl-4-methylphenylamino, 2-carboxyl-3-methylphenylamino, 3-carboxyl-2-methylphenylamino, 4-carboxyl-2-methylphenylamino, 5-carboxyl-2-methylphenylamino, 2-cyano-5-methylphenylamino, 2-hydroxymethyl-6-methylphenylamino, 2-hydroxymethyl-4-methylphenylamino, 2-methyl-3-hydroxymethylphenylamino, 2-methyl-5-hydroxymethylphenylamino, 2-cyano-4-nitrophenylamino, 4-cyano-2-nitrophenylamino, 2-methyl-4-nitrophenylamino, 2-hydroxy-3-carboxylphenylamino, 3-hydroxy-4-carboxylphenylamino, 3-carboxyl-4-hydroxyphenylamino, 4-sulfo-2-methylphenylamino, 3-sulfo-4-methylphenylamino, 2-sulfo-4-methylphenylamino, phenylthio, p-methylphenylthio, o-methylphenylthio, m-methylphenylthio, 2-carboxylphenylthio, pyridin-2-amino, pyridin-3-amino, pyridin-4-amino, 5-bromopyridin-2-amino, 5-bromo-3-nitropyridin-2-amino, 4-methyl-3-nitropyridin-2-amino, 4-methyl-5-nitropyridin-2-amino, 3-nitropyridin-2-amino, 5-nitropyridin-2-amino, 3-methylpyridin-2-amino, 4-methylpyridin-2-amino, 5-methylpyridin-2-amino, 6-methylpyridin-2-amino, 4,6-dimethylpyridin-2-amino, 2-methoxypyridin-5-amino, 5-chloropyridin-2-amino, 2-chloropyridin-3-amino, 2-chloropyridin-5-amino, 3,5-dibromopyridin-2-amino, 3,5-dichloropyridin-2-amino, 4-methyl-3-nitropyridin-2-amino, 4-methyl-5-nitropyridin-2-amino, nicotinamid-6-amino, nicotinamid-2-amino, pyrimidin-2-amino, pyrimidin-4-amino, 5-bromopyrimidin-2-amino, 2,6-dihydroxypyrimidin-4-amino, 4,6-dimethoxypyrimidin-3-amino, 4,6-dimethoxypyrimidin-2-amino, 4-hydroxy-6-methylpyrimidin-2-amino, 3-hydroxypyrimidin-2-amino, 4-methoxy-5-methylpyrimidin-2-amino, 2-methoxypyrimidin-5-amino, 4-chloro-6-methylpyrimidin-2-amino, 6-chloro-2-methylthiopyrimidin-4-amino, 4,6-dichloropyrimidin-2-amino, 4,6-dichloropyrimidin-5-amino, 4-methylpyrimidin-2-amino, 3-nitropyrimidin-2-amino and 5-nitropyrimidin-2-amino.

26. (New) The method of claim 20, wherein the method comprises diluting the compound represented by formula I with pharmaceutically acceptable excipients.

27. (New) The method of claim 26, wherein the pharmaceutical excipients are

provided in solid, semisolid, or liquid form as a media for the excipient, the carrier or the compound.

28. (New) The method of claim 27, wherein the pharmaceutical excipients are provided in solid form.

29. (New) The method of claim 28, wherein the pharmaceutical excipients are selected from the group consisting of sugars, celluloses, calcium silicate, poly-vinylpyrrolidone, magnesium stearate, sodium stearate, and glycerol minostearate.

30. (New) The method of claim 27, wherein the pharmaceutical excipients are provided in semisolid or liquid form.

31. (New) The method of claim 30, wherein the pharmaceutical excipients are selected from the group consisting of water, glucose solution, saline, syrup, ethanol, glycerol, propylene glycol, and oil.